Mr. H. D. Gowey, North Lewisburgh, Ohio: sun spots were observed on the 20th, 21st, and 24th.

At Minden, Nebr., the month was very dry; no fall plowing was done; and pastures were injured. At Howe, Nebr., no rain fell after the 15th, and wells were failing. Drought prevailed at Concordia, Kans.; many wells were dry and water was scarce. At Hannibal, Mo., no rain fell after the 15th; water for stock was scarce and wheat suffered by drought. At Pickering, Mo., the month was dry; streams were very low; water for stock scarce, and the ground too dry to plow. Woonsocket, S. Dak., the drought continued during the month, and very little plowing was done. A report from Marshall, Minn., dated the 1st, stated that Island Lake, Goose Lake, and Lake Stay were dry.

On the 2d extensive prairie fires were reported near New 15th, and 25th to 31st.

England City, N. Dak., and north and east of Bismarck, N. Dak. Prairie fires were reported south and west of Bismarck on the 4th. On the 9th prairie fires occurred at Cannon Ball. N. Dak. Destructive prairie fires were reported along the Cannon Ball, Knife, and Heart Rivers, N. Dak., during the first half of the month. Reports of the 21st from Los Angeles. Cal., state that extensive mountain fires prevailed near the Santa Monica Canon, and grass fires on the plains, causing considerable damage. A report from San Diego, Cal., dated the 22d, states that brush fires prevailed, with hot, dry winds from the n. and nw., badly drying and burning raisin grapes. On the 2d timber fires had caused great damage near Rapid City, S. Dak.; several ranches were burned, and many telegraph poles were destroyed. On the 3d snow and rain nearly extinguished the fires. Destructive fires were also reported in the region of Rapid City on the 5th and 31st. Forest fires were reported near Red Bluff, Cal., on the 9th, 10th, 11th.

O VERIFICATIONS.

O FORECASTS FOR 24 HOURS IN ADVANCE.

The forecasts for districts east of the Rocky Mountains for October, 1890, were made by 2d Lieut. W. A. Glassford, Signal Corps, and those for the Pacific coast districts were made at San Francisco, Cal., by 2d Lieutenant John P. Finley, Signal Corps.

Percentages of forecasts verified, October, 1890.

States.	States.	States.				
Maine New Hampshire Vermont. Massachusetts Rhode Island Connecticut Eastern New York. Western New York Eastern Pennsylvania New Jersey Delaware Maryland District of Columbia Virginia North Carolina South Carolina South Carolina Georgia Eastern Florida Western Florida Missisppi Louislana Texas Arkansas Tennessee	So. 3	84.8 86.4 86.4 82.6 81.0 78.9 76.4 75.4 86.3 77.7 88.3 86.3 91.8 87.8 87.8 88.9				

[•] In determining the monthly percentage of weather and temperature combined, the Pacific coast states are not included. † The forecasts of temperature in districts east of the Rocky Mountains for October, 1890, were made with reference to the maximum temperature alone; that is, a prediction of warmer or cooler indicated that the maximum temperature of the day designated would be higher or lower than the maximum of the previous day. ‡ The monthly percentage of weather and temperature combined is determined by multiplying the percentage of weather by 6, and the percentage of temperature by 4, and dividing their sum by 10.

6 FORECASTS FOR 48 HOURS IN ADVANCE. Appreciating the great importance that long time predic-

[Verifications made by Assistant Professor C. F. Marvin, assisted by Mr. H. | tions possess for the general public the Chief Signal Officer has E. Williams, chief clerk of the Forecast Division.] | tions possess for the general public the Chief Signal Officer has authorized forecasts for 48 and 72 hours, covering the 2d and 3d days in advance. These are optional with the forecast official, and are only made when clearly in the public interest, and cover, in all cases, considerable areas of country. and are not confined to localities.

Percentages of verifications of forecasts made for second day in advance. Number of predictions made: weather, 11; temperature, 3. Percentages of verifications: weather, 60.0: temperature, 83.3; weather and temperature combined, 63.6. No forecasts for 72 hours were made during the month.

CAUTIONARY SIGNALS FOR OCTOBER, 1890.

Statement showing percentages of justifications of wind signals for the month of October, 1890:

Wind signals.—(Ordered by 2d Lieut. W. A. Glassford). Total number of signals ordered, 121; justified as to velocity, wholly, 79, partly, 9; justified as to direction, 112. Of the signals ordered 88 were cautionary, of which 54 were wholly. and 6 partly justified; and 33 were storm signals, of which 25 were wholly, and 3 partly justified. 48 signals were ordered for easterly winds, of which 42 were justified, and 73 were ordered for westerly winds, of which 70 were justified. Percentage of justifications, 71.7.

No cold-wave signals were ordered during the month.

Percentages of verifications of weather and temperature signals reported by directors of the various State Weather Services for October, 1890.

States.	Weather.	Tem- perature.	States.	Weather.	Tem- perature.
Iowa	86 75 83 82 70 79	88 71 90 87 83 84	Nebraska New Jorsey North and South Dakota Ohio Pennsylvania South Carolina	مَوَ ا	84 88 84 89 87 90

STATE WEATHER SERVICES.

[Temperature in degrees Fahrenheit; precipitation, including melted snow, in inches and hundredths.]

The following extracts and summaries are republished from reports for October, 1890, of the directors of the various state weather services:

O ARKANSAS.

Temperature.—The mean was 1.7 below the normal; maximum, 91, at Lead Hill, 12th; minimum, 26, at Devall's Bluff and Stuttgart, 31st; greatest monthly range, 61, at Lead Hill; least monthly range, 32, at Malvern.

Precipitation.—The average was 1.00 above the normal of the last 8 years;

greatest monthly, 4.46, at Camden; least monthly, 1.46, at Pine Bluff.— M. F. Locke, Commissioner of Agriculture, Little Rock, director; F. H. Clarke, Sergeant, Signal Corps, assistant.

Temperature.—The mean as 2.5 below the normal; maximum, 98, at

Citronelle, 4th and 5th; minimum, 28, at Valley Head, 31st; greatest monthly range, 57, at Valley Head.

Precipitation.—The average was 1.54 above the normal; greatest monthly,

7.88, at Opelika; least monthly, 1.90, at Fort Deposit.

Wind.—Prevailing direction, northwest.—Prof. P. H. Mell, Auburn, director; J. M. Quarles, Private, Signal Corps, assistant.

Temperature.—The mean corresponded with the normal of the last 5 years; maximum, 93, at Sterling, 19th; minimum, -10, at Breckenridge, 23d; greatest monthly range, 95, at Breckenridge; least monthly range, 30, at Byers.

Precipitation.—The average was somewhat below the normal of the last 5

years; greatest monthly, 3.26, at Cumbres; least monthly, 0.00, at several stations.

-Prevailing direction, west .- W. S. Miller, Sergeant, Signal Corps. Wind .-

Colorado Springs, assistant.

fillinois. Temperature.—The mean was 1.0 below the normal of the last 15 years; maximum, 94, at East Peoria, 12th; minimum, 20, at Atwood and Sandwich, 81at

Precipitation.—The average was 0.26 below the normal of the last 12 years; greatest monthly, 6.40, at Vinnebago; least monthly, 0.60, at Irishtown.

Wind.—Prevailing direction, northwest.—John Craig, Sergeant, Signal

Corps, Springfield. in charge.

INDIANA.

Temperature.-Maximum, , at Huntingburgh, Princeton, Marengo, Ve vsy, and Seymour, 12th; minimum, 20, at Point Isabel, 31st; greatest monthly range, 58, at Point Isabel; least monthly range, 42, at Angola.

Precipitation.—Greatest monthly, 4.60, at Marengo; least monthly, 2.05,

at Muncie.

Wind. - Prevailing direction, northwest. - Prof. H. A. Huston, La Fayette, director; C. F. R. Wappenhans, Sergeant, Signal Corps, assistant.

Temperature.—The mean was slightly below the normal; maximum, 86, at Keokuk, 12th; minimum, 16, at Cresco and Webster City, 31st; greatest monthly range, 64, at Keokuk; least monthly range, 47, at Iowa City.

Precipitation.—Greatest monthly, 6.82, at Monticello; least monthly, 1.09,

st Omaha, Nebr.

Wind.—Prevailing direction, northwest.—J. R. Sage, Des Moines, director;

G. M. Chappel, Sergeant, Signal Corps, assistant.

**Chapper, Sayes, Sayes sedan, 10th; minimum, 9, at Lakin, 10th; greatest monthly range, 77, at Lakin; least monthly range, 50, at Leavenworth, Weskan, and Winona.

Precipitation.—The average was 0.52 above the normal; greatest monthly, 6.98, at Lebo; least monthly, 0.00, at Ellis.

Wind.—Prevailing direction, south.—Prof. J. T. Lovewell, Topeka, director;

T. B. Jennings, Sergeant, Signal Corps, assistant.

Temperature.—The mean was slightly below the normal; maximum, 87, at Frankfort, 12th; minimum, 28, at Princeton, 81st; greatest monthly range, 68, at Princeton; least monthly range, 44, at Caddo.

Precipitation.—The average was nearly normal; greatest monthly, 5.17, at Edmonton; least monthly, 2.00, at Earlington.

Wind.—Prevailing direction, southwest.—Dr. E. A. Grant, Louisville, director; Frank Burke, Sergeant, Signal Corps, assistant.

LOUISIANA.

Temperature.—The mean was slightly above the normal for the first half
of the month and below for the latter half; maximum, 94, at Cameron, 5th and 12th; minimum, 33, at Davis, 26th; greatest monthly range, 58, at State Experiment Station; least monthly range, 38, at New Orleans.

Precipitation.—Greatest monthly, 8.04, at Abbeville; least monthly, 2.90, at

Wind .- Prevailing direction, north .- George E. Hunt, Sergeant, Signal Corps, New Orleans, in charge.

MICHIGAN.

Temperature.—The mean was 0.6 below the normal of the last 15 years;
maximum, 82, at Clinton and Adrian, 13th; minimum, 21, at Roscommon, 22d; greatest monthly range, 60, at Otsego; least monthly range, 23, at Atlantic.

-The average was 1.60 above the normal of the last 15 years; Precipitation .-

greatest monthly, 11.02, at Berlin; least monthly, 0.68, at Crystal Falls.

Wind.—Prevailing direction, northwest.—N. B. Conger, Sergeant, Signal Corps, Lansing, director.

Temperature.—Maximum, 79, at Crookston, 2d; minimum, 12, at Pokegama Falls, 81st; greatest monthly range, 64, at Pokegama Falls; least monthly range, 42, at Duluth and Farmington.

Precipitation.—Greatest monthly, 5.14, at La Crosse, Wis.; least monthly,

1.64, at Morris.

Wind.—Prevailing direction, northwest—John Healy, Corporal, Signal Corps, Saint Paul, in charge.

OMISSISSIPPI. Temperature.—The mean was 2 below the normal; maximum, 95, at Vaiden, 5th and 9th; minimum, 26, at Aberdeen, 31st; greatest monthly range, 64, at Vaiden; least monthly range, 36, at Bay Saint Louis.

Precipitation.—The average was 0.04 above the normal; greatest monthly,

6.31, at Moss Point: least monthly, 0.17, at Jackson.—R. B. Fulton, Signal Corps, University, director.

OMISSOURI.

Temperature.—The mean was 1.1 above the normal; maximum, 91. at Protem, 12th; minimum, 22, at Fayette.

Precipitation.—Greatest monthly, 5.08, at Kansas City; least monthly, 0.88, at Fox Creek.—Prof. Francis E. Nipher, Saint Louis, director.

METEOROLOGICAL REPORT OF THE MISSOURI STATE BOARD OF AGRICULTURE.

Temperature.-Maximum, 91, at Protem, 12th; minimum, 16, at Centreville, 31st; greatest monthly range, 67, at Adrian, and Centreville; least monthly range, 44, at Warrenton.

Precipitation.—Greatest monthly, 5.19, at Carrollton; least monthly, 0.40.

at New Haven.

Wind .- Prevailing direction, south .- Levi Chubbuck, Secretary of State Board of Agriculture, Columbia, director; A. L. McRae, Sergeant, Signal Corps, assistant.

O NEBRASKA.

Temperature.-The mean was nearly normal; maximum, 92, at Superior;

minimum, 8, at Alliance.

Precipitation.—The rainfall was nearly normal; there was less than 1.00 in the west part of the state, and in the east half more than 1.00, with a maximum rainfall of 3.28 at Superior .- Prof. Goodwin D. Swezey, Crete, director; G. A. Loveland, Sergeant, Signal Corps, assistant.

NEVADA.

Temperature.—The mean was 2.2 below the normal; maximum, 92, at El Dorado Canyon, 7th; minimum, 8, at Pioche, 11th; greatest monthly range, 65, at Pioche; least monthly range, 21, at Austin.

Precipitation.—The average was 0.44 below the normal; greatest monthly, 1.25, at Downeyville; least monthly, 0.00, at several stations.—Prof. Charles W. Friend, Carson City, director; H. E. Wilkinson, Corporal, Signal Corps, assistant.

O NEW ENGLAND METEOROLOGICAL SOCIETY.

Temperature.—The mean was 1.0 below the normal; maximum, 84, at Low-

remperature.—The mean was 1.0 below the normal; maximum, 84, at Lowell (d), 2d; minimum, 12, at West Milan, 23d; greatest monthly range, 63, at West Milan; least monthly range, 29, at Nantucket and Block Island.

Precipitation.—The average was 3.20 above the normal; greatest, 10.85, at Westborough; least monthly, 2.02, at Burlington.

Wind.—Prevailing direction, northwest.—Prof. William H. Niles, Boston, Mass., president; Prof. Winslow Upton, Providence, R. I., secretary; J. Warren Smith, Private, Signal Corps, assistant.

NEW JERSEY.

Temperature.—The mean was 0.4 below the normal; maximum, 81, at Beverly, 1st; minimum, 24, at Tenafly, 81st; greatest monthly range, 58, at Beverly; least monthly range, 83, at Ocean City.

Precipitation.—The average was 8.14 above the normal; greatest monthly.

10.18, at Oceanic; least monthly, 3.40, at Ocean City.

Wind.—Prevailing direction, northwest.—E. W. McGann, Sergeant, Signal Corps, New Brunswick, in charge.

O NEW YORK.

The month was unusually wet and cool.

The month was unusually wet and cool.

Temperature.—Maximum, 82, at East Hampton, 1st; minimum, 24, at Hyndsville, 2d, and at Marshland, 14th; greatest monthly range, 53, at Keene Valley and Rondout; least monthly range, 84, at Brooklyn and Setauket.

Precipitation.—Greatest monthly, 10.20, at Setauket; least monthly, 2.25,

at Massena.

Wind.—Prevailing direction, northwest.—Prof. E. A. Fuertes, Ithaca, director; R. M. Hardinge, Private, Signal Corps. assistant.

NORTH CAROLINA.

Temperature.—The Mean was 2.4 below the normal; maximum, 89, at Washington, 7th; minimum, 22, at Franklin, 28th.

Precipitation.—The average was 0.50 above the normal; greatest monthly, 7.61, at Washington; least monthly, 1.88, at Wilmington.

Wind.—Prevailing direction, northwest.—Dr. Herbert B. Battle, Raleigh, director; C. F. von Herrmann, Sergeant, Signal Corps, assistant.

O NORTH AND SOUTH DAKOTA.

Temperature. - The mean was 1.3 above the normal; maximum, 85, at Fort Sully, S. Dak., 8d, and at Millbank, S. Dak., 2d; minimum, 10, at Howard, S. Dak., 26th; greatest monthly range, 75, at Steele, N. Dak.; least monthly range, 47, at Scranton, S. Dak.

Precipitation.—The average was about 0.81 below the normal; greatest monthly, 3.59, at Grand Forks, N. Dak.; least monthly, 0.25, at Onida, S. Dak. Wind.—Prevailing direction, northwest.—S. W. Glenn, Sergeant, Signal Corps, Huron, S. Dak., in charge.

6 onio. Temperature.—The mean for the northern section, middle section, the southern section, and of the state was 1.2, 1.6, 1.8, and 1.4, respectively, above the average for the sections and the state; maximum, 85, at Logan and Georgetown, 12th, and at Hanging Rock, Waverly, and Logan, 13th;

minimum, 29, at Yellow Springs, 30th.

Precipitation .- The average for the northern section, the middle section, the southern section, and the state was 2.79, 1.13, 0.60, and 1.51, respectively, above the normal for the sections and state; greatest monthly, 8.29, at Jefferson; least monthly, 1.45, at Greenville.—Prof. B. F. Thomas, Columbus, director; C. M. Strong, Sergeant, Signal Corps, secretary and assistant.

O OREGON.

The characteristics of the month were the deficiency in temperature and

The characteristics of the month were the deficiency in temperature and precipitation.

Temperature.—The mean was 1.4 below the normal; maximum, 81, at Lakeview, 29th; minimum, 11, at North Powder, 13th.

Precipitation.—The average was 0.89 below the normal; greatest monthly, 6.89, at Cascade Locks; least monthly, trace, at Beulah.

Wind.—Prevailing direction, southwest.—Hon. H. E. Hayes, Master State Grange, Oswego, director; B. S. Pague, Sergeant, Signal Corps, assistant.

PENNSYLVANIA.

Temperature.—The mean was 1.0 below the normal; maximum, 81, at Selin's Grove, 15th; minimum, 21, at Dyberry, 31st; greatest monthly range, 55, at Wilkes Barre; least monthly range, 36, at Altoona.

Precipitation.—The average was 2.50 above the normal; greatest monthly,

8.41, at Eagle's Mere; least monthly, 4.03, at Mauch Chunk.

Wind.—Prevailing direction, west.—Under direction of the Franklin Institute. Philadelphia; T. F. Townsend, Sergeant, Signal Corps, assistant.

SOUTH CAROLINA.

Temperature.—Maximum, 90, at Spartauburgh, 12th; minimum, 22, at Spartanburgh, 28th and 30th; greatest monthly range, 68, at Spartanburgh; least monthly range, 41, at Camden and Conway.

Precipitation.—Greatest monthly, 7.19, at Evergreen; least monthly, 0.99, at Branchville.—A. P. Butler, director, State Weather Service, and observer, Signal Service.

TENNESSEE.

The meteorological features of the month were for the most part normal. Temperature.—The mean was about normal; maximum, 88, at Franklin, 12th; minimum, 26, at Hohenwald, 31st; greatest monthly range, 58, at Franklin and Hohenwald; least monthly range, 46, at Greeneville and Jacks-

Precipitation.—The average was considerably in excess of the normal for the last eight years; greatest monthly, 5.80, at Dare; least monthly, 1.22, at

Strawberry Plains.

Wind.—Prevailing directions, west and northwest.—J. D. Plunket, M. D., Nashville, director; H. C. Bate, Signal Corps, assistant.

O TEXAS.

Temperature.—The mean was normal in all parts of the state except in the vicinity of the coast and over the eastern portions, where it averaged 1.0 below the normal; maximum, 98, at Rio Grande City, 5th; minimum, 25, at Coldwater, 15th; greatest monthly range, 64, at Coldwater; least monthly range, 18, at La Grange.

Precipitation.—The average was about normal in the vicinity of the coast, from 1.00 to 3.00 above over the central and eastern portions, and 1.00 below over the other portions of the state; greatest monthly, 9.01, at Palestine; least monthly, 0.24, at Coldwater.—D. Bryan, Galveston, director; I. M. Cline, Sergeant, Signal Corps, assistant.

WISCONSIN.

Temperature.—The mean was 1.5 below the normal; maximum, 78, at Hayward, 1st; minimum, 16, at Hayward, 16th.

Precipitation.—The average was 1.24 above the normal; greatest monthly, 5.89, at Oshkosh; least monthly, 2.02, at Plover

Wind—Propaliting direction porthwest—P. Kenkam Superators Simulations of the second Simulation of the

Wind .- Prevailing direction, northwest .- R. E. Kerkam, Sergeant, Signal Corps, in charge.

Meteorological record of Army post surgeons, voluntary, and other co-operating observers, October, 1890.

	Temperature. (Fahrenheit.)			فعد		Temperature. (Fahrenheit.)			. i
Stations.		Ø ë	Mean.	Prec	Stations.	Max.	Mio.	Mean	Precip'n
Alabama.			•	Ins.	Alaska.	۰	0		Ins.
Bermuda *†	85	36	62.7	2.96	Juneau	59	30	42.3	11.31
Citronelle		37	68-4	4.08	Killisnoo	50	30	40.3	7.55
Columbiana †		29	61.2	5.56	Arizona.			1	
Decatur (1) †	ł			2.37	Ariz. Canal Co. Dam.		45	71.9	0.87
Decatur (2)†	85	26	59.2	2.06	Benson		46	64.2	0.41
Double Springs t		30	58.7	3 - 53	Bisbect	75	41	59.2	1.06
Eufaula 7		47	66.8	3.05	Calabasas		[0.10
Evergreen †	87	34	64.8	5.63	Саяа Grande		55	74-1	0.38
Fort Deposit	89	38	64.9	1.90	Chino	78	30	55.1	2.00
Livingsion(1) *	84	34	59.1	2.82	Chiri Cahua M't's		1		2.85
Livingston(2) †	86	33	62.4	1.99	Cooley'st c	71	24	48-4	5.78
Marion †	87	30	62.3	3.75	Crittenden				1.42
Mt. Vernon B'ks	90	35	63.0	5.10	Dragoon t			'	1.01
Opelika†	83	30	60.8	7.33	Dragoon Summit	80	62	69.8	
Pine Applet	86	33	63.5	5-53	Dos Cabezos t	• • • •	[• • • • • •]	· • • • • • • • • • • • • • • • • • • •	1.12
Selma(2)†	89	33 34 28	63.9	2.66	Dudleyville	• • • • •			0.84
Tuscumbia (2)	84	28	56.7	3.00	Eagle Pass		36	54.2	1.75
Valley Head t	85	24	55.1	3.44	Farley's Camp	 .	45	74.6	2.40

Meteorological record of voluntary observers, &c .- Continued.

;	Meleorolog	jecui	76001	u vj	- Count	cary observers, ac.					
ι,	1	Temperature. (Fahrenheit.)		Ė	1	Ten (Fa	npera hrenh	ture.	نه ا		
,	Stations.	<u> </u>			ip,	Stations.)· :		;	ip'n.	
·-		Max	Min	Mean	Precip'n.	i	Max	Min.	Мев	Preci	
5,			-		 -	i -		·	! ==	-	
	Arizona—Cont'd.	0	0	66.1	Ins. 0.41	California—Cont'd. Evergreen	٥	0	0	Ins.	
d	Florencet	83	37 28	55-3	1.91	Farmington	92	45	63.9	0.00	
u	Fort Bowie Fort Grant		43 39	60.8	1.60	Felton Fernando	95 95	35 38	66.6	0.00	
ıt	Fort Huachuca	80	40	62.0	0.37	· Florence*	05	48	67.0	0.00	
	Fort Lowell Fort McDowell	98 97	35	70.5	0.77	Folsom Fort Gaston	95 82	48 31	61.3	0.05	
•	Gila Bend(1) •	88	56	74.7	0.00	Fort Gaston Fort Mason Fresno	81	45	\$5.8 \$8.8	0.54	
!e	Gila Bend (2) Grand Central Mill.		55	73-3	0.05	· Fruto	10	50 41	64.0	0.00	
i.	Holbrook † Lochiel*		42	51.8	0.62	Galt	95	45 38	63.2	0.00	
•	Maricopa	81	61	69.4	0.07	I: GHPOV ♥	0.2	40	59.6	0.19	
	Mount Huachuca Natural Bridget	83	38	59.5	1.46	Girard • Glen Ellen	95	35 34	59-4	0.00	
it e,	New Rivert	86		64.6	3.27	Goshen♥ Grass Valley	86	50	59·5	0.00	
•	Oro	98	53	71.9	0.75	Haywards *	76	42	56.5	0.05	
٠,	Pantano					Hollister	92	39	59.7	0.00	
	San CarlosShow Low †Signal †StrawberryTempe				1.10		75 86	30 40	52·8 59·4	0.00	
١-	Signal t	90	43	67.2	1.49	Julian •	86	45 42	61.7	0.35	
	Tempe	j		ļ	0.15	Keeler	78	55	58.4	0.00	
				72.0	0.02	Keene *	84 86	38 40	. 58.7	0.00	
ιt	Texas Hill Tip Top †		45	63.6	2.36	Kingsburgh King City Knight's Landing.	99 84	32	65.2	0.00	
١;	Tombstone Tueson (1) †	86	40	63.9	0.62	La Grange Lathrop.	92	49 42	63.4	0.00 T.	
	Tueson (2)	03	. 04		0.65	Lathrop Lauret	85 93	45	64.7	0.00	
	Walnut Grovet Walnut Rancht				2.11	Lemoore	85	40 42	63.5	0.00	
,	Whipple Barracks. Willcox*	82	26 50	54·2 65·6	0.88	Livermore	90	48	65.5	0.00	
	Wilgus Woodruff		, 30 		1.25	: Long Beach	96	44 50	65.0	0.00	
	Woodruff Yuma	02	55	60.6	0.50	Los Angeles* Los Banos (2)	96 80	46 52	68.2	0.02	
١,	Arkansas.	-	. 05		!	Los Gatos (1) Los Gatos (2)	88 85	46	65.3	0.00	
t	Arkansas City † Caniden †	84	37	61.7	3.47	Mammoth Tank	96	41 52	74.9	0.00	
3-	Caniden †	82	34	58-6	2.57	Martinez* Milton (near)	82 82	47 46	62.7	0.00	
r	Dardanelle Devall's Bluff	85	26	60-4	2.05	Marysville	loco I	56	66.5 66.5	T.	
t	Forrest City f Fultons	86	32		1.48	Menlo Park* Merced	118	41 10	58.9	0.00	
	Harrisburgh	85	28	57.8	3.18	Modesto	86	47	67.3	0.02	
,	Helena (1)† Helena(2)		`••••• :••••		3.26	Mojave *	87	44 45	62.0	0.00	
i	Hot Springs Lead Hill	87	31 30	60-5	2.25	Montague Monterey *	72 86	46 36	56.4	0.00	
	Lonoke	91 86	25	62.1	1.75	Monterey (H. d. M.)	8-	38	58.7	0.00	
e	Malvern Newport(1)†	84	52?	66.17	2.26	rewnan	07	42 35	54·9 63·0	0.00	
*	Newport(2) Osceola	86 87	28 28	59·4 58·9		Newman Niles	86 86	54 42	70.5	0.00	
	Ozone	79	34	57.2	2.63	Narwalles		53	1 60.8 71.5	0.00	
'	Pine Bluff Prescott	86 81	34 38	61.8	3.09	Oakland(1) Oakland(2)* Ogilby *	72	43 46	58.5	0.00	
,	Russellville	84	33 26	60·8 59·2	2.74 2.56	Ogilby * Ontario *	105	58	79.8	0.14	
٧	Stuttgart	86	35	64.4	3.09	Orland i	97	45 45	72.0	0.16	
;	Washington Winslow		35 33	63.5 56.8	3·55 3·13.	Oroville Pajaro •	100	45 33	67.9 58.7	0.00	
	California.					Paso Robles *	88	35	58-8	0.00	
	Alcade*	85 85	50 45	59.0	0.00	Placerville (1) •	90 87	41 42	60.8	0.00	
t	Almaden* Anaheim*	86 001	45	62·5 68·7	0.00	Fincerville (2)	70 i	33	55.7	T.	
١,	Angel Island	91	56 40	62.2	0.00	Forterville	87 1	44 42	59.8 59.0	0.04	
,	Antioch*Aptos*	82 90	54 ! 38	64 · I 59 · 3	0.04	Presidio of S. F	93	40 45	66.6	• • • • •	
ŀ	Athlone*	92	40	65.7	0.00	' Ravenna	90	32	63.9	0.00	
l	Auburn * Bakersfield *	87 86	40 48	63·3 65·8	0.00	Redding •	98 97	45 38	64. I 63. o	0.00	
	Barstow †	89	37	63.4	0.00	Rumsey *	89 89	45 48	64.9	0.00	
-	Belmont*	90 85	40 42	62.6	0.00	Sacramento(1)	75	34	67.0 53.9	0.00	
_	Benicia Barracks Berendo •	89 85 .	45 52	66.9	0.00	Sacramento(2) Salinas(1) *	76 94	47 44 <i>9</i>	61.4 57·39	0.00	
١	Berkeley Bishop Creek	86 j	46	59.8	0.00	Salinas (1)* Salinas (2)* Salton *	95	42	59.9	0.00	
	Boca	85 I	22	59·5 48·9	0.70	Sanger Junction*	95	48 48	72.6 67.6	0.00	
ĺ	Boulder Creek* Brighton*	96 94	29 50	54.8 66.9	0.00	' San Diego B'kal	96 89	42 46	65.6 65.5	0.00	
	Byron*	84	50	66.0	0.00	San Gabriel	90	36	61.5	0.00	
.	Caliente* Calistoga*	88 88	43 34	60.0	0.00	San Mateo	85	42 40	57·2	0.10	
1	Castroville * Centreville *c	87	42 48	58.2	0.00	San Miguel* San Pedro*	96	46	67.3	0.00	
5	Chico *	93 92	47	63.7	0.00	Santa Ana	95 95	50 54	71.6	0.00	
7	Coltax*	87 :	29 i 40	45.6 63.3	O. 55	Santa Barbara (1)	96 89	44 49	64.0 65.4	0.05	
5	Colton	100	39	69-4	0.00	Santa Barbara (2) Santa Cruz (1)* Santa Cruz (2)*	92	42	61.2	0.00	
3	Crescent City			67.4	1.11	Banta Margaritae	92 86	38 30	59·0 55·8	0.00	
. 1	Davisville	87 '	42 44	64.9	0.00	Santa Monica*	86 88	48 48	64.3	0.09	
3	Delano Delta	88		FO 7	0.40	Santa Rosa*	86	40	61.3	0.00	
2	Downeys Dunnigan El Dorado	94 88	52 1 49 1	69.7	0.00	Selma*	89 98	42 40	62. I	0.00	
	El Dorado	89 .			0.00	Sims*	85 86	48	61.3	0.08	
	El Verano*	84 :	38	60.9	0.00	S1880n	73	31 27	54·4 46.2	0.00 0.13	
1	Emigrant Gap Esparto *	72	29 46	52.5 65.1	0.65	Soreana	92 85	40 38	60.0	0.00	
•		•	-				- 0	5-	22.3	2. 43	